

### **III. Remarks**

#### **A. Status of Application**

Claims 1, 4, 5, 8-11, 13, 14 and 16-20 were previously pending.

Claim 18 has been amended.

Claims 1, 4, 5, 8-11, 13, 14, 16, 17, 19 and 20 have been maintained in their previously-presented form.

As a result, claims 1, 4, 5, 8-11, 13, 14 and 16-20 remain pending.

Favorable consideration of this application is respectfully requested.

#### **B. Claim Objection**

Claim 18 stands objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependant claim. In response, claim 18 has been amended to overcome this objection. Thus, the objection to claim 18 should be withdrawn.

#### **C. Rejections Under 35 U.S.C. §103**

##### **1. Claims 1, 4, 5, 8, 9, 13, 14 and 16-20**

Claims 1, 4, 5, 8, 9, 13, 14 and 16-20 stand rejected under 35 U.S.C. §103(a) over U.S. Patent No. 5,895,631 to Tajima ("Tajima '631"). Insofar as it may be applied against the present claims, this rejection is respectfully traversed.

Claim 1 recites the following:

A carrier housing/processing apparatus comprising;  
at least one non magnetic carrier fixed or able to be fixed with chemical substances such as ligands;  
a transferable carrier housing section comprising:  
a large diameter section which accommodates said carrier, the large diameter section having a bottom, and  
a small diameter section connected to the large diameter section, the small diameter section comprising a tip, and a fluid inlet/outlet at the tip;

a plurality of containers provided outside of said transferable carrier housing section;

a drawing/discharging section configured to draw a fluid through said inlet/outlet and into said transferable carrier housing section, and then discharge the fluid out of said transferable carrier housing section through said inlet/outlet; and

a transferring section which transfers said transferable carrier housing section relatively with respect to the containers, the transfer of said transferable carrier housing section relatively with respect to the containers including the transfer of the large diameter section and the small diameter section relatively with respect to the containers, the transfer of the small diameter section relatively with respect to the containers including the transfer of the tip and the inlet/outlet relatively with respect to the containers,

wherein said carrier is formed in a size or a shape not allowing said carrier to pass through said inlet/outlet,

wherein said carrier is positioned at the bottom of the large diameter section,

wherein said carrier is configured to have a self-weight such that:

the position of said carrier is maintained at the bottom of the large diameter section by the self-weight while the drawing/discharging section draws the fluid in a first direction into the bottom of the large diameter section from the small diameter section, and

the position of said carrier is maintained at the bottom of the large diameter section by the self-weight while the drawing/discharging section discharges the fluid in a second direction into the small diameter section from the bottom of the large diameter section, the second direction being opposite to the first direction,

wherein said carrier housing section further comprises an opening having a size enabling said carrier to pass through, and said drawing/discharging section is provided with a nozzle which detachably connects with said opening, and said carrier is formed in a size capable of passing through said opening but not capable of passing through said inlet/outlet,

wherein the smaller diameter of the small diameter section of said transferable carrier housing section enables insertion of the smaller diameter section into each of the containers, the insertion of the smaller diameter section into each of the containers including the insertion of the tip and the inlet/outlet into each of the containers, and

wherein said carrier or said carrier housing section is provided with an adhesion prevention section for keeping said carrier from being adhered to the inner wall of said carrier housing section.

As the PTO recognizes in MPEP §2142:

*The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness.*

In the present application, the Examiner has not met the burden of factually supporting a *prima facie* case of obviousness of claim 1 under 35 U.S.C. §103(a) for the reasons set forth in sections (A), (B) and (C) below.

(A)

**Tajima '631 fails to disclose the subject matter of claim 1.**

MPEP §2143.03 states that “‘ [a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.’ *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).” However, in the present matter, the Examiner has not shown that all the words in claim 1 have been considered. In particular, independent claim 1 recites, *inter alia*:

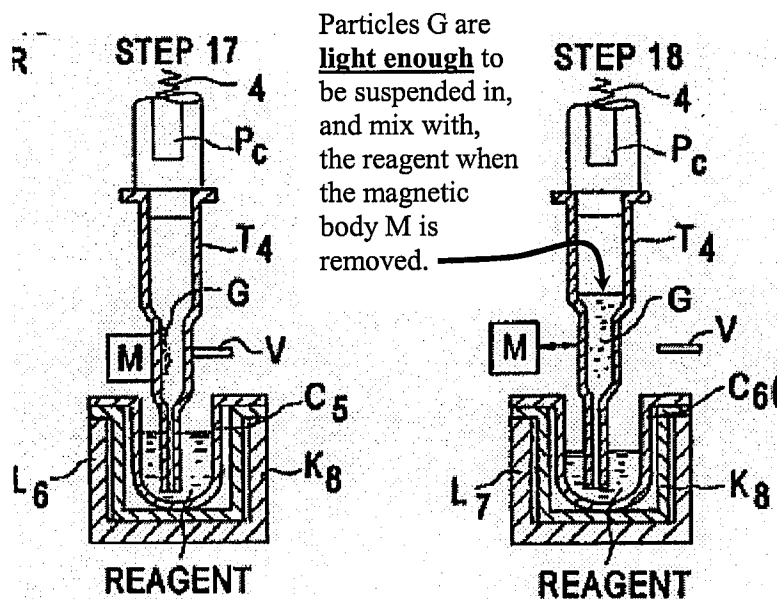
1. *a carrier and a carrier housing section, wherein the carrier or the carrier housing section is provided with an adhesion prevention section for keeping said carrier from being adhered to the inner wall of said carrier housing section;*
2. *wherein said carrier is configured to have a self-weight such that:*
  - *the position of said carrier is maintained at the bottom of the large diameter section by the self-weight while the drawing/discharging section draws the fluid in a first direction into the bottom of the large diameter section from the small diameter section, and*
  - *the position of said carrier is maintained at the bottom of the large diameter section by the self-weight while the drawing/discharging section discharges the fluid in a second direction into the small diameter section from the bottom of the large diameter section, the second direction being opposite to the first direction,*

(emphases added).

Tajima '631 fails to disclose these two elements of claim 1. Indeed, the Examiner admits that Tajima '631 does not disclose the first element of claim listed above, namely an adhesion prevention section for keeping said carrier from being adhered to the inner wall of said carrier housing section. See Office Action mailed April 25, 2011, page 4, lines 3-6.

Regarding the second element of claim 1 listed above, Tajima '631, a portion of Fig. 13 of which is reproduced below, discloses magnetic particles G, which are drawn with a reaction liquid through the inlet/outlet of a chip (or pipette) T4 during the pumping (sucking and/or discharging) of fluid through the inlet/outlet. The magnetic particles G are separated from the reaction liquid, and held within the chip T4, by adhering the magnetic particles G to the inner wall of the chip T4 using a magnetic body M. When the magnetic body M is removed from the chip T4, the magnetic particles G are suspended in, and mixed with, a reagent. *See, e.g., Tajima '631, Fig. 13.*

### Portion of Fig. 13 of Tajima '631



Contrary to the subject matter of claim 1, however, the magnetic particles G do not have a self-weight such that the particles are maintained at the bottom of the chip T4 while the reagent is drawn into the chip T4, and while the reagent is discharged from the chip T4. Instead, the magnetic body M is used to maintain the positions of the magnetic particles G. Indeed, the self-weight of the magnetic particles G is such that the particles G are suspended in, and mixed with, the reagent when the reagent is in the chip T4, as shown in Fig. 13.

Since the self-weight of the magnetic particles G is such that the particles G are suspended in, and mixed with, the reagent when the reagent is in the chip T4, it clearly follows that the self-weight of the magnetic particles G is not such that the positions of the particles

would be maintained towards the bottom of the chip T4 while the reagent is drawn into the chip T4. In other words, Tajima '631 requires the weight of the particles G to be light enough (or not heavy enough) so that the particles G can be suspended in, and mix with, the reagent, as shown in Fig. 13, rather than the weight of the particles G being heavy enough so that they are maintained at the bottom of the chip T4, as required by claim 1.

Since Tajima '631 fails to disclose at least two elements of claim 1, it is apparent that a rejection of claim 1 under 35 U.S.C. §103(a) is not supported by Tajima '631.

(B)

**Tajima '631 leads away from the proposed modification thereof to include an adhesion prevention section.**

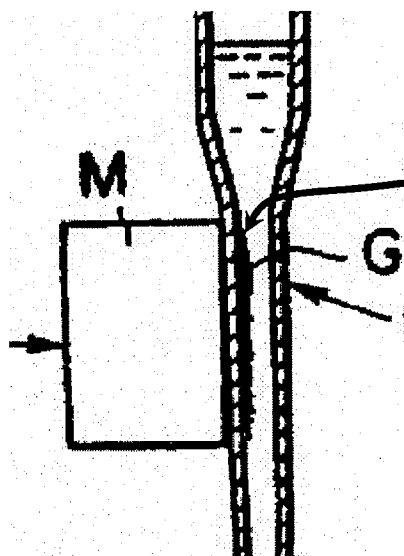
In addition to the reasons noted above, a rejection of claim 1 over Tajima '631 is improper because Tajima '631 leads away from the subject matter of claim 1.

As stated in MPEP §2141.02(VI), "[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." (emphasis in original) (citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983)).

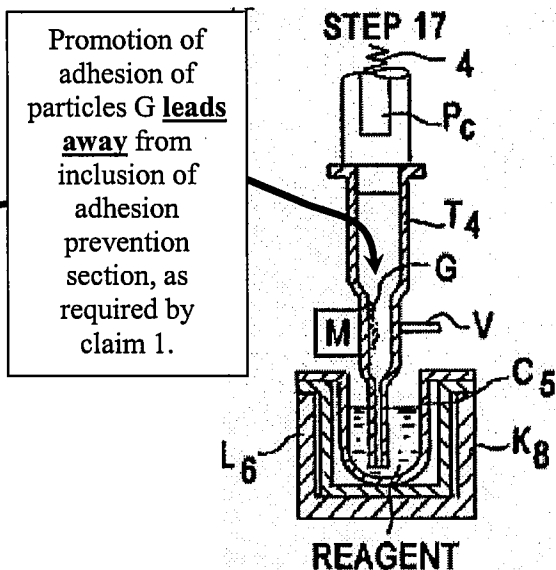
The Examiner's proposed modification of the chip T4 of Tajima '631 to include an adhesion prevention section for keeping the carrier from being adhered to the inner wall of the carrier housing section is improper because Tajima '631, as a whole, leads away from the modification.

Tajima '631 discloses contacting the outside surface of a chip T4 with a magnetic body M to thereby **adhere** magnetic particles G against the inner wall of the chip T4. (*See, e.g.*, Tajima '631, Figs. 7 and 13). Since Tajima '631 **promotes** adhesion, Tajima '631 leads away from the inclusion of an adhesion prevention section, which would **prevent** adhesion of the magnetic particles G against the inner wall of the chip T4, as indicated in respective portions of Figs. 7 and 13 of Tajima '631 reproduced below.

Portion of Fig. 7 of Tajima '631



Portion of Fig. 13 of Tajima '631



Thus, Tajima '631 clearly leads away from the subject matter of claim 1 and any contention otherwise can only be based on impermissible hindsight, which must be avoided as required by MPEP §2142.

For the foregoing reasons, it is apparent that a rejection of claim 1 under 35 U.S.C. §103(a) over Tajima '631 is improper because Tajima '631 leads away from the subject matter of claim 1.

(C)

**The proposed modification of Tajima '631 to include an adhesion prevention section improperly relies on the capabilities of one of ordinary skill in the art rather than articulated reasoning with some rational underpinning.**

In addition to the reasons noted above, a rejection of claim 1 over Tajima '631 is improper because the proposed modification of Tajima '631 to include an adhesion prevention section improperly relies on the capabilities of one of ordinary skill in the art rather than articulated reasoning with some rational underpinning.

MPEP §2142 specifies that:

*"[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR International Co. v. Teleflex Inc., 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also KSR, 550 U.S. at \_\_\_, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval)."*

(emphasis added).

The proposed modification of the chip T4 of Tajima '631 to include an adhesion prevention section for keeping said carrier from being adhered to the inner wall of said carrier housing section is improper. The Examiner alleges that "[w]ith respect to the limitations of adhesion prevention section . . . such was common practice in the prior art; one of ordinary skill in the art would have known to use adhesion prevention and holding sections when needed." Office Action mailed April 25, 2011, page 4, lines 3-6.

However, the Examiner does not provide the articulated reasoning with some rational underpinning required by MPEP §2142 to so modify Tajima '631. Instead, the Examiner improperly relies on the capabilities of one of ordinary skill in the art as the alleged reason to so modify Tajima '631 without providing any facts to support the Examiner's conclusory statements. This improper reliance is directly prohibited by MPEP §2143.01, which provides:

*"[THE] FACT THAT THE CLAIMED INVENTION IS WITHIN THE CAPABILITIES OF ONE OF ORDINARY SKILL IN THE ART IS NOT SUFFICIENT BY ITSELF TO ESTABLISH PRIMA FACIE OBVIOUSNESS*

*A statement that modifications of the prior art to meet the claimed invention would have been " 'well within the ordinary skill of the art at the time the claimed invention was made' " because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references."*

(case citations omitted).

Since the Examiner has provided neither an objective reason to modify Tajima '631 to include an adhesion prevention section nor any articulated reasoning with some rational underpinning to so modify Tajima '631, the proposed modification is improper.

For the foregoing reasons, it is apparent that a rejection of claim 1 under 35 U.S.C. §103(a) over Tajima '631 is improper because the proposed modification of Tajima '631 to include an adhesion prevention section improperly relies on the capabilities of one of ordinary skill in the art.

For the reasons set forth in sections A, B and C above, a rejection of claim 1 under 35 U.S.C. §103(a) cannot be supported by Tajima '631. Thus, claim 1 is allowable.

Each of claims 4, 5, 8, 9, 13 and 19 depends upon and includes the subject matter of claim 1 and therefore is allowable for at least the same reasons as noted above with respect to claim 1.

Claim 14 is a method version of claim 1 and therefore is allowable for at least the same reasons as noted above with respect to claim 1.

Each of claims 16-18 and 20 depends upon and includes the subject matter of claim 14 and therefore is allowable for at least the same reasons as noted above with respect to claim 14.

For all the foregoing reasons, it is respectfully requested that the rejection of claims 1, 4, 5, 8, 9, 13, 14 and 16-20 under 35 U.S.C. §103(a) over Tajima '631 be withdrawn.



**2. Claims 1, 4, 5, 8-11, 13, 14 and 16-20**

Claims 1, 4, 5, 8-11, 13, 14 and 16-20 stand rejected under 35 U.S.C. §103(a) over Tajima '631 in view of both U.S. Patent No. 5,919,706 to Tajima ("Tajima '706") and U.S. Patent No. 6,100,079 to Tajima ("Tajima '079").

The deficiencies of Tajima '631 with respect to claims 1, 4, 5, 8, 9, 13, 14 and 16-20 are noted above. Tajima '706 is cited as disclosing the use of translucent chips and an outside measuring apparatus. Tajima '079 is cited as disclosing the use of pipette devices to monitor the binding of high molecular substances of interest to carriers wherein monitoring takes place via luminescence. However, neither the cited portions of Tajima '706 nor the cited portions of Tajima '079 cure the deficiencies of Tajima '631 noted above. Therefore, it is clear that the cited portions of Tajima '631, Tajima '706 and Tajima '079, alone or in any combination, do not disclose the subject matter of claims 1, 4, 5, 8, 9, 13, 14 and 16-20, and of claims 10 and 11 which are dependent upon and include the subject matter of claim 1.

In addition, it would not be obvious to modify the disclosures of Tajima '631, Tajima '706 and Tajima '079 to include the subject matter of any of claims 1, 4, 5, 8-11, 13, 14 and 16-20 because there is no reason to so modify the disclosures.

Accordingly, it is requested that the rejection of claims 1, 4, 5, 8-11, 13, 14 and 16-20 under 35 U.S.C. §103(a) over Tajima '631 in view of both Tajima '706 and Tajima '079 be withdrawn.


**D. Conclusion**

It is believed that all matters set forth in the Office Action mailed April 25, 2011 have been addressed. Applicant has made a diligent effort to advance the prosecution of this application by submitting arguments in support of the patentability of claims 1, 4, 5, 8-11, 13, 14 and 16-20.

In view of all of the above, the allowance of claims 1, 4, 5, 8-11, 13, 14 and 16-20 is respectfully requested.

The Examiner is invited to call the undersigned at the below-listed telephone number if a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,



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